

SEQUENCE LISTING

<110> GONG, Fangcheng et al.

<120> ISOLATED HUMAN ENZYME PROTEINS, NUCLEIC
ACID MOLECULES ENCODING HUMAN ENZYME PROTEINS, AND USES
THEREOF

<130> CL001155-CIPDIV

<140> (to be assigned)

<141> 2003-07-03

<150> US 09/799,344

<151> 2001-03-06

<160> 6

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1546

<212> DNA

<213> Homo sapiens

<400> 1

```

tgctggggca cctgaaggag acttgggggc acccgcgctg tgctcctggt gttgtgagga 60
gtcgccgctg ccgccactgc ctgtgcttca tgaggaagat gtcgcccggc gtctcccgcg 120
tgctgtctgg cgcttctcag aagccggcaa gcagagtgtt ggtagcatcc cgtaattttg 180
caaatgatgc tacatttgaa attaagaaat gtgaccttca ccggctggaa gaaggccctc 240
ctgtcacaaac agtgctcacc agggaggatg ggctcaaata ctacaggatg atgcagactg 300
tacgccgaat ggagttgaaa gcagatcagc tgtataaaca gaaaattatt cgtggtttct 360
gtcacttgtg tgatggctag tttctccttc ctctaacaca ggaagcttgc tgtgtggggc 420
tggaggcccg catcaacccc acagaccatc tcatcacagc ctaccggggt cacggcttta 480
ctttcaccgg gggcctttcc gtccgagaaa ttctcgcaga gcttacagga cgaaaaggag 540
gttgtgctaa agcgaaagga ggatcgatgc acatgtatgc caagaacttc tacgggggca 600
atggcatcgt gggagcgcag gtgcccctgg gcgctgggat tgctctagcc tgtaagtata 660
atggaaaaaga tgaggtctgc ctgactttat atggcgatgg tgctgctaac cagggccaga 720
tattcgaagc ttacaacatg gcagctttgt ggaaattacc ttgtattttc atctgtgaga 780
ataatcgcta tggaatggga acgtctgttg agagagcggc agccagcact gattactaca 840
agagaggcga tttcattcct gggctgagag tggatggaat ggatatcctg tgcgtccgag 900
aggcaacaag gtttgctgct gcctattgta gatctgggaa ggggcccatc ctgatggagc 960
tgcagactta ccgttaccac ggacacagta tgagtgacct tggagtcagt taccgtacac 1020
gagaagaaat tcaggaagta agaagtaaga gtgaccctat tatgcttctc aaggacagga 1080
tgggtgaacag caatcttgcc agtggtggaag aactaaagga aattgatgtg gaagtgagga 1140
aggagattga ggatgctgcc cagtttgcca cggccgatcc tgagccacct ttggaagagc 1200
tgggctacca catctactcc agcgaccac cttttgaagt tcgtggtgcc aatcagtgga 1260
tcaagttaa gtcagtcagt taaggggagg agaaggagag gttatacctt caggggggcta 1320
ccagacagtg ttctcaactt ggtaaggag gaagaaaacc cagtcaatga aattcaatga 1380
aattcttgga aacttcattt aagtgtgtag attgagcagg tagtaattgc atgcagtttg 1440
tacattagt cattaagaaga tgaattattg agtgcttaaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 1546

```

<210> 2

<211> 397

<212> PRT

<213> Homo sapiens

<400> 2

Met	Arg	Lys	Met	Leu	Ala	Ala	Val	Ser	Arg	Val	Leu	Ser	Gly	Ala	Ser
1				5				10						15	
Gln	Lys	Pro	Ala	Ser	Arg	Val	Leu	Val	Ala	Ser	Arg	Asn	Phe	Ala	Asn
			20					25					30		
Asp	Ala	Thr	Phe	Glu	Ile	Lys	Lys	Cys	Asp	Leu	His	Arg	Leu	Glu	Glu
		35					40					45			
Gly	Pro	Pro	Val	Thr	Thr	Val	Leu	Thr	Arg	Glu	Asp	Gly	Leu	Lys	Tyr
	50					55					60				
Tyr	Arg	Met	Met	Gln	Thr	Val	Arg	Arg	Met	Glu	Leu	Lys	Ala	Asp	Gln
65					70					75					80
Leu	Tyr	Lys	Gln	Lys	Ile	Ile	Arg	Gly	Phe	Cys	His	Leu	Cys	Asp	Gly
				85					90					95	
Gln	Phe	Leu	Leu	Pro	Leu	Thr	Gln	Glu	Ala	Cys	Cys	Val	Gly	Leu	Glu
			100					105					110		
Ala	Gly	Ile	Asn	Pro	Thr	Asp	His	Leu	Ile	Thr	Ala	Tyr	Arg	Ala	His
		115					120					125			
Gly	Phe	Thr	Phe	Thr	Arg	Gly	Leu	Ser	Val	Arg	Glu	Ile	Leu	Ala	Glu
	130					135					140				
Leu	Thr	Gly	Arg	Lys	Gly	Gly	Cys	Ala	Lys	Ala	Lys	Gly	Gly	Ser	Met
145				150					155						160
His	Met	Tyr	Ala	Lys	Asn	Phe	Tyr	Gly	Gly	Asn	Gly	Ile	Val	Gly	Ala
				165					170					175	
Gln	Val	Pro	Leu	Gly	Ala	Gly	Ile	Ala	Leu	Ala	Cys	Lys	Tyr	Asn	Gly
			180					185					190		
Lys	Asp	Glu	Val	Cys	Leu	Thr	Leu	Tyr	Gly	Asp	Gly	Ala	Ala	Asn	Gln
		195					200					205			
Gly	Gln	Ile	Phe	Glu	Ala	Tyr	Asn	Met	Ala	Ala	Leu	Trp	Lys	Leu	Pro
	210					215					220				
Cys	Ile	Phe	Ile	Cys	Glu	Asn	Asn	Arg	Tyr	Gly	Met	Gly	Thr	Ser	Val
225				230					235						240
Glu	Arg	Ala	Ala	Ala	Ser	Thr	Asp	Tyr	Tyr	Lys	Arg	Gly	Asp	Phe	Ile
				245					250					255	
Pro	Gly	Leu	Arg	Val	Asp	Gly	Met	Asp	Ile	Leu	Cys	Val	Arg	Glu	Ala
		260					265						270		
Thr	Arg	Phe	Ala	Ala	Ala	Tyr	Cys	Arg	Ser	Gly	Lys	Gly	Pro	Ile	Leu
		275					280					285			
Met	Glu	Leu	Gln	Thr	Tyr	Arg	Tyr	His	Gly	His	Ser	Met	Ser	Asp	Pro
	290					295					300				
Gly	Val	Ser	Tyr	Arg	Thr	Arg	Glu	Glu	Ile	Gln	Glu	Val	Arg	Ser	Lys
305				310					315						320
Ser	Asp	Pro	Ile	Met	Leu	Leu	Lys	Asp	Arg	Met	Val	Asn	Ser	Asn	Leu
				325					330					335	
Ala	Ser	Val	Glu	Glu	Leu	Lys	Glu	Ile	Asp	Val	Glu	Val	Arg	Lys	Glu
			340					345					350		
Ile	Glu	Asp	Ala	Ala	Gln	Phe	Ala	Thr	Ala	Asp	Pro	Glu	Pro	Pro	Leu
		355					360					365			
Glu	Glu	Leu	Gly	Tyr	His	Ile	Tyr	Ser	Ser	Asp	Pro	Pro	Phe	Glu	Val
	370					375					380				
Arg	Gly	Ala	Asn	Gln	Trp	Ile	Lys	Phe	Lys	Ser	Val	Ser			
385					390						395				

<210> 3

<211> 18400

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(18400)

<223> n = A,T,C or G

<400> 3

```
agttgttcct tctaaccat tgatttggtc aatcatgtat ttaagtagga cctatatattt 60
acttggtcct tgctatatct tcagtggtga gtacagtgtc tgacacaaaa tcggtgctca 120
ataataggtg ttggatgaat gagcaaatga atgaatgaat tcataattcat atggcctaca 180
gagttcccg acatgcacaa ccaatatcac caccctgtgg agatgactcc caaattaata 240
tttttagcaa atgttcagga cttacaactc caacttcccg ggggacatct tcagatagct 300
gtgccactgc caccaccagg tcaacatgtc ccaaacatt cagaccagct tttctcctg 360
agctggacat ctggcctcca accttttcat tctcttttac ctttcatatt ctatcagcag 420
cagcagctgc tgaaatcata ccatgcaagt ttctcacgtc catctctgcc ttttaattggc 480
gccctctcac tcctttaaga agttttcttc cactgcaaca cgatctctca gtccagagtc 540
tggtccagtgc cccaaattat ttctctagct atgctgagag ctggtcatgc tttgaacttc 600
tgctttgaat actttcagtg aactggggag agaattatct cattggacca ttgtcattgt 660
tagaaaattc attgttatgc tgaaatgaaa tgattttatt cacacacaca cacacacaca 720
cacaaaatag ctcttctctc tggaacatga ctggcctgaa aatgtgtgaa gacatatcca 780
atcctctctg gttttactgt tcatccaatt ttctgttctc ctccctggcag gaggattata 840
tttcacctg tggaactcag acatggctcg gtaactagct ctggtccgtg aaaattgaga 900
ggaagtgaca tgtgtcactt ctgggcagaa gctttgagag ccggttttaa tgatcccttt 960
tctcttcac catgagacaa gctaagttcc agagagaggg tgccacgctg tgagggacct 1020
gtgttacgag tacgatggct cgcgtcactt caaattcttg aaatcactga aatttgaggg 1080
tcagttgtta catcataacc cagccaattc tagttagcct gttttcttcc taacttcttt 1140
aatcgttctt cataagtcc aatcgcagcc cctcaccgtt ctgaccactg tccctggat 1200
tccactcagt ttactcatta tcccccttaa aatgtggagc ccaaatctga acccggaacc 1260
ccaggtgcaa tcccactagg acacaacaca atgggttcct gagccctttg atcctctgaa 1320
tagagccctt gtgtgtttg gtgttttgtc tctgtgtgtg cttttatcat cggctgagcc 1380
acgctgttaa ctgcagtgga gctgtgaac caataactag agaaaaaaga tttttcccat 1440
tgtcctctcg acatatattg ggaaacaaat tttttgatcc gcgttcaagt agacagggca 1500
gaactgtcca actgtctagt gatcttttaa agacaaagtt agtggcagac catttacaga 1560
aaccagatgt tctgtctttt ggctctgagc atgctgctaa tcttcatcat ctagtgtact 1620
gaacgagatg tactgaacga gggctgcaga gctgcagcac cggcaggagt aggcgctcgg 1680
taggacgggg cctgcacaac ctccccggta gtcagcagag cggaatctag gaaggctcct 1740
ttcccgcgcc gccctggagg cggggggccc accttcccac gcaggcgcta tcaagccccg 1800
ctcctcacc cgcgcgagg gtggcgctcg aaagagccct cagccctctc ctctctggcg 1860
ctgataccca atgggcagcc tcaggccttt agcggggggc gggcaccccc tggacgccgt 1920
tctggttggc ccgcggcccg gcgcagcgca tgacgttatt acgactctgt cacgccgcgg 1980
tgcactgag gcgtggcgtc tgctggggca cctgaaggag acttgggggc accgcgtcg 2040
tgccctctgg gttgtgagga gtgcgcgtg ccgcactgc ctgtgcttca tgaggaagat 2100
gtcgcgcgcc gtctcccgcg tgctgtctgg cgcttctcag aagccgggtg gacctcccg 2160
gcgggcccgg atggggcgcg agtggggctg aggcggggcc ggagggcagg gcgggcccagg 2220
ccgggcccacc cagagcgggg tggaaggcgc caggggagcc ggggagcctt tacttcgcct 2280
ccgcgcctg cattccgttc ctggcctcgg gagaagcggc acggaccggg atcacgcca 2340
ggcctcgtgt aacttcccc ttctcgacac ccacctccc ccccgggcc cagctgtgcg 2400
ccaggcgaag tcggtgtgct caagaggtgc ctgttgggtt acaggacacg gaaagggtg 2460
cctcggcctc cttcagctct ccaattgacc ccactcattt cggatcttct aacttaattt 2520
ctcttgaccg agaggctttg taatagcgta gaatctggag acagggtggc ttcgttcaaa 2580
cagcaccctc accattgact agccctgtga ccttgagcaa gtttttaaac gtccggggga 2640
ccgggtttcc taaaatgttt gctcgaagtg gagttaatct ctaaaatggg ataagagtta 2700
tctctgaaat gttatcggtt attaaaatgt tatcagttaa ctctaaaatg gagataata 2760
gagtcctcac ctcttgggtt tgtcttgagg attcaacgag tgacacgtgt ggaaacgatt 2820
ccaaatagca cctggcacat aatcgataat atgtgtgttg aatagtgtta tttattgagt 2880
ctccagttcg gtatacattt cttgaacacc tgtgctcagt tctgaggcgg gttcacagaa 2940
```

ggtcagcctc	ttcagaaaaca	aacttcctcc	tcttccctct	ccctcaacat	ctgagctttt	3000
cttggcagtg	agttcaggag	cgccgaagca	gaactcagag	gacgctgccc	tccccctccc	3060
ttacctacac	attcttaggg	tacaagtagc	taaagcaaag	agcaacgatg	cttgaggggt	3120
ggggggtaga	gtttagcact	atctcatggc	ctcagcattt	agaggtgcct	aacacctgag	3180
ctagcattct	gaccccccta	ggcacagtga	ggtcgtgtta	attggtgtaa	ctgcaggcct	3240
cgggattctg	gtatttcccc	caggacttga	taccgctcta	cttagtacag	gcaagagatt	3300
gtcaaaagg	aaagaggat	gccccctctag	gaatcctggt	gcctaaaata	atgacaaaac	3360
tgccgggtgc	ggtgctcagg	cctgtaatcc	cagcattttg	ggaggctgag	gcagggtggat	3420
cacctgaagg	tcagaagttc	gagatcagcc	tggccaacat	ggtgaaaccc	cgtctctact	3480
aaaaatacaa	aattagccgg	tcgtggtggc	gggtccctgt	aatcccagct	actcgggagg	3540
ctgaggcggg	agaatagcct	gaacccggga	gcggagtttg	cagtgcgcgg	agatcgtgcc	3600
attgcactac	ggcctgggcg	acaagaagca	agaactccgt	atttttaaaa	aaaaaaaaaa	3660
aaaaaaaaaa	aaaagcgttc	ccttttaggg	tatctgtggg	tagagggtcg	taccggtagt	3720
tacggggtca	gaaacatcct	tcctttaggc	acctgatgta	ggttttcttc	ttcttctgca	3780
agtcagggttc	attgtttcct	gtatcagttt	gcagggtccc	ccccccccc	ccaccttaca	3840
gtaggaagaa	aattgagttc	cagatatgaa	gtcacctttg	aaagtgccca	ggtatctttc	3900
cacttggtgg	tgtaaactct	tcagataatt	agaagttttc	tgtgtcactc	aacttgtcat	3960
ggactaattt	aggaaacatt	cctgaagcct	ttaaggatag	aactaaaagt	ttcactttta	4020
tttttttaaa	gggtggaata	ataaactaac	gtgttgactc	tttgtatttt	gtaattcttc	4080
atacttatgg	atgtcttttt	acttaactat	aagtaacaaa	atagatcaac	gttttagttt	4140
ttttatatta	tacatgtaaa	aagacatttt	gcataataagc	ctttcacaaa	aatcttgaca	4200
gtaacaata	agcagtggct	cacccaaatt	aggcagactt	actgcactag	actcctacca	4260
tctgtgtgat	actccatgaa	gggagggaga	aggggagggg	gaagggtagg	cagctggtct	4320
gatggctgtg	acacaagata	atccccctaa	cctcccaaga	cgctgtgtgt	tttttccttt	4380
tttattctcc	ctggtttact	ttcgttttgt	ttgagacagg	gtctctgtgt	caccagggct	4440
ggagtgcagt	agcaggacag	ctcactgcag	ccttagcctg	ctgggctcaa	gcgatcctcc	4500
tgccttagcc	tcctgagtag	ctgggaacac	aggcatgtgc	caccaccaca	ccagccaatt	4560
taaaaaaatt	ttttttttac	tagagacatg	gtctgtctac	gttgcccagt	ctggtctcca	4620
tctccaggct	caagcagttc	tcccacctcg	gcctcccaaa	gtgctgggat	tactctcact	4680
ctcttaaaac	caggcaggta	gggagattta	tctcaggctt	aaagattgcc	attgtctcat	4740
caaagagtgt	ttggtgtgaa	actttgaaat	gaatatcaag	attgtgtttt	tatttttgaa	4800
taagggttat	agttttcata	gttcttattt	catggaagaa	gattgaatgc	atttaaaatg	4860
ttattttatt	gtttgcattt	ctgtatggct	ccttttgatg	gatctttact	agcaatgttt	4920
tggctttata	agtggtaggt	aagagtttta	atttacactg	ttagaatctg	gaatttttga	4980
aacgtttttc	ctctttcaca	tgaatgggtc	ctatgtattt	aggaagttaa	agttttactt	5040
ttttttaatt	aatttttttt	tttaggctgg	aatgcagtg	cacagtcata	gctcactgta	5100
gcctcagggt	tgtgccacca	tacctgacta	attttttaat	atttattttt	gtagagatga	5160
gagtctcatg	ttgccccagg	tggctttgaa	ctcctggctt	caagtgggtc	tcccaccctg	5220
gcctcccaaa	gtgctgggga	ttataggtgt	gagccatcat	gcccggccta	gtttttattt	5280
tttaaaattt	gagtgggttg	ttcgtggtct	ctgtcagaga	ggaatcccat	ttaacagaga	5340
atctttttat	ggctctccag	agaaaatgaa	tggtaaactt	atcttttcaa	caagctctca	5400
ctcagaaatg	atacacacac	acttctgata	ggacttttag	cttctttaac	ttgttccctt	5460
tcactcatat	cagtgggtct	tatttttgag	atacacagta	atgaagccat	gggagaaagt	5520
atctaagtag	ctttctggca	gtcctaactc	ttgcaggcgc	aagattacag	gcgcatgcca	5580
cagcactggg	ccccttcttg	ctcttttatg	tatagcatta	tcctgcctca	ttgtttcaac	5640
tctaggattg	agaaagaagt	taccttttct	ctgttactgt	cgctggctg	gtttggactc	5700
ctgccttcca	aaaactgcag	tttctgtagt	tgtatttgga	aattttatttc	acaatacaat	5760
aaattttctg	ccccacaaaa	tatttattaa	ctgccaaagaa	taacacatct	gtttgattgc	5820
taaatataac	cattgatttg	ctgtttcacc	ttctctcagc	tttacttctt	cccaaattcc	5880
taaatttcct	tcactttttc	tgagatacat	tagtggactg	tctctgcctg	taagttaact	5940
gaaacactga	ttcctagtat	ttcagttggt	ttcctccagc	actgtcattg	tctgtgtttg	6000
ttggctttgt	ccaataatgg	tctattgagg	ggtgaagata	tacgtaatta	gctttctgcc	6060
tattggcttg	tacactccag	ggtatacttg	gcagatcagt	cttaactctt	ctcaccaaga	6120
tcagtccagt	gctggattag	gtaaggtagt	aacacatcag	atgtgctttt	tatggagaaa	6180
tcatgttggt	ttacacgtca	gtgtgtgaga	atgtggcaga	agggagctaa	aatagtatga	6240
taatactact	ggataaaatt	tgtggtctaa	cctaaacctt	agccattaca	tagaatactt	6300
ttgctgtgag	cagggttgct	cagttgtaaa	actggaaagg	aatcatttct	cacccccgc	6360

ctccaagctt	tttacctcca	aacagtgaca	gccacccaaa	catcaagaga	acagtgtttc	6420
agagaacatt	tctactgggg	cttcaggagg	agcctgtcca	agatttaggc	tgttcaaatt	6480
ataaattata	aaacagctgg	ctcaagccca	ttgtgtttta	gtcagagagt	gctaagtatc	6540
ttttcttttg	tcttgtctcc	ctaaagtatt	tatctcatat	ttcaatcaat	ttaaaatatt	6600
ttttctttaca	gatccaattt	gatagaagag	tcaagtttgc	ctagagtggg	gattaaatca	6660
tagttttatt	tgaagtataa	ttttggcttg	ctcaaaatga	acagtatctg	gttatgacta	6720
agaatggcat	gaaaaggcca	gacgcagtgg	ctcatgcctg	caatcccagt	actttgggag	6780
gccaaaggcag	gtggatcacc	tgaggtcagg	agttggagac	cagcctggcc	aacatgggtga	6840
aaccccatct	ctactaaaaa	tataaaaatt	agccggggccg	tggtgggtggg	cacctgtaat	6900
cccagctact	cgggagactg	agacaggaga	aatcacttga	acccgggaag	cggagggttgc	6960
agtgagccga	gatcgacca	ctgcactcca	gcctgggtga	taaaagcaaa	actccgtctc	7020
aaaacaaaca	aacaaaagaa	tggcataaac	agacacagct	cacagatgat	ctagtctctt	7080
tagccactaa	tttcattata	ttctcactat	aatttctttg	aaaacaaagg	atgggtttgt	7140
tttttgcccc	tctttgcgct	gcttgccttc	agatgcggga	taatcctgtt	tcattggcca	7200
aagcatggat	tcatttttga	ggccaaggaa	gatgcaaaca	cagtgcacag	gggtggaagag	7260
aagcctatga	atatgttggg	gcttattaaa	tttccataac	ttcattctga	taactgatta	7320
ttatactttc	caaaatagct	gacaattaaa	aagtactgat	ttgtttgtat	atttttgtct	7380
tttaaggcaa	gcagagtgtc	ggtagcatcc	cgtaattttg	caaatgatgc	tacatttgaa	7440
attaaggtaa	gagtgtttta	ctttgttaat	aattttttca	caggtacact	ctgatataca	7500
gtttttacctt	tagaatagaa	catcttgatg	ttcatgatta	gtcatcattt	tcttctaaat	7560
gtccaggatc	agaagttcag	agaagcttat	tcaaaagttt	ggaatgtaat	tcagtgaaat	7620
atltgaataa	gaagagtctt	agttgtttct	ttgaaggttc	tttcaacctt	taactcagtt	7680
ggcttctagg	ggctttcagt	gaaaatcatc	ttagaaagat	ttccttcccc	caagcccat	7740
ctcattgcac	agtgaagttt	atggatttaa	ggaacagagg	cgatatgaag	cattactgat	7800
gtgctccttt	gcagtttttc	aagttcaata	ttatttgcaa	tggagttaga	tcttagagtg	7860
gtcaacagtg	tttgcaatgt	agtatgtgga	ggataataac	taccttattc	catttcagaa	7920
atgtgacctt	caccggctgg	aagaaggccc	tcctgtcaca	acagtgtctc	ccagggagga	7980
tggtgtcaaa	tactacagga	tgatgcagac	tgtacgccga	atggagttag	aagcagatca	8040
gctgtataaa	cagaaaatta	ttcgtgggtt	ctgtcacttg	tgtgatggtc	aggtgagtgg	8100
taggtttgtg	gtggaactgt	gttatttagg	tactgaagta	tggcttgtac	ttattgggct	8160
ttaccctgcc	atatgtatca	gaagagtttg	aggctggtaa	tgtaattttc	ttttatttat	8220
ttattttttt	gagacagtct	ctctctgtcg	cccagggttag	agtacagtgg	tgatcttggc	8280
tcactgcagc	ctctgggttag	agtacagtgt	gatcttggct	cactgcagcc	tctgtccact	8340
gggtctcaagc	aatcctccca	cctcagcctc	ccgagtatgt	gggaccacag	gtgcacacca	8400
acacacccag	ctaatttttg	tatttttttg	agatacgggg	tttccactatg	ttgcccaggc	8460
tagtctcaaa	cttctgggct	caagtgggtc	gccacacctg	gcctcccaag	gtgctaggat	8520
tacaggcgtg	agccactgtg	cctggctgaa	gccagtattt	tagaattaaa	aagtagaatg	8580
ccaaaacctg	ctatgaagct	taggctaaag	aattcattca	cacataacat	tgccagtttt	8640
ctgtacctgt	tcttagagtt	ttactatttt	aaaactttct	ggcactatga	tcgcctgtac	8700
tgtatataat	ttggagagaa	aggattagtt	tgttttttgt	tttgtgggct	taggtcaagg	8760
gttagagtca	aatacctaca	agggccagcc	aggtagaata	aatgagtga	gaaggctagg	8820
tatacaaaac	agaaaatggg	gacagggact	catgctgaac	tggcaccagc	atgccctacc	8880
cagaggaatg	ccatgacttg	gttccagcca	gttgggtgcca	tgtggaaatc	aggggtaatg	8940
tttctgtgtt	tccatgtcta	agagaaggcg	gaagtctgga	ttttcatgtg	aaattcccg	9000
tgtttttaatg	ttgacatctg	atgtaggcct	ttatttttagg	tcatacataca	ggagaaagga	9060
aggaagtggc	acatgtgtgg	gttgccagtt	tattgtctct	ggtttgggct	ttccactctg	9120
tattttgggg	gaaaatagct	actttctctg	gttattaatg	acagggtcta	ctagcccaca	9180
tatttctactg	tggtctagga	aacgtttttt	tttagaaaca	tgtatcatat	tgctctcatg	9240
tttctccttc	ctctaacaca	ggaagcttgc	tgtgtgggct	tggaggccgg	catcaacccc	9300
acagaccatc	ctatcacagc	ctaccgggct	cacggcttta	ctttcacccg	gggcctttcc	9360
gtccgagaaa	ttctcgcaga	gcttacagg	ttgtgtgtga	tttacagaaa	ggggaaatga	9420
gtggattaag	tttttaata	tctgtgcatt	aagatgctat	tatgagttaa	tatttgttaa	9480
aaatttttaag	tttctttttt	taaccctctc	tcctttgggtg	ctctgggtact	tctgttgtgc	9540
tcttgagtta	actgaccatt	tgtgaagttc	tctggccctt	caggtaaaaag	tttaaaacag	9600
gttgggtgcta	taaaatcaca	gtaggtttgg	ttatcattca	agcatgccag	aagaagtcta	9660
gcagtcatag	aaagtaagtt	cggttgaagc	actccatggg	atgcaatgta	aattctagaa	9720
atcttcttaa	tattccccct	ttctttgtcc	cccgtgacta	tttgtttgtt	ttgggtgggtt	9780

tttttttttt	ttttttttga	gactgtgtct	cactccgttg	tccaggtggt	gtgcagtggt	9840
gtgatcaggg	ctcactgcaa	cctccacctc	ccgggttcaa	gtgattctca	tgccctccacc	9900
tcctgagtag	ctgggactac	aggcatgcac	caccacacct	ggctaatttt	tgtatttttta	9960
gtagagatgg	ggtttcaaca	tgttgccag	gctgggtctcc	aactcctgac	ctcaggtgat	10020
ccacctgcct	tggcctccca	aagtgtgtcg	gggttacagg	cgtgagccac	cgacctggc	10080
ctgttttgtt	tttttgagac	agagtctcgc	ttgttgccc	aggctggagt	gcagtgacct	10140
gcctcagcct	cccaaaatgc	taggattaca	ggcgtgagcc	actgtgccc	gtcctcctcc	10200
tcctcctttt	tttttttttt	ttttgagaca	gagtttctact	ctttcaccca	ggctggagtg	10260
gctggagtg	agtggatga	ttttggctca	ctgcagcctc	cgcccccccg	gttcaagcaa	10320
ttctcctgcc	tcagcctcct	gagtagctag	gattataggt	gcccaccac	cacacctggc	10380
taattttctgt	attttttagta	gagaccaggt	ttcaccatgt	tggccaggct	ggtcttgaac	10440
tcttgacctc	aggtgatcca	ccctcttcgg	cctcccaaaa	tgttaggatt	acaggcgtga	10500
gccgccgtgc	ccggccctcc	ttgactcttg	aactatgggt	gtccctctat	atatccaggg	10560
gattggttct	aggacctcgc	agtatacaaa	aatcctcaaa	tactcaagtc	ccaaagtcag	10620
ccttccatat	cttcgggttt	gcctcctgag	aatattctat	tttcaatata	tgtgtggctg	10680
aaaaaaaaatc	tgtgtataag	tgtacctgtg	cagttcaaac	cctgttcaag	gattgaatat	10740
atttagtgt	ctagtatagg	agaggtccta	agatgtttgt	aactggccag	aaaaccaga	10800
aaagtccagg	gtatcatctg	gatggaacat	ctgaaggaaa	ctaagtgact	agagagtagg	10860
aaaagctgga	aaggttgaag	cacatggaac	tagtgaaagg	acaaggagaa	acatgtgttt	10920
gcctggaggg	acaggtactt	agacgactga	actggcctct	gtgttctaata	ggttgagcct	10980
cagagtacat	atttgggggtg	cggtttggtt	tgctttgtag	agttgggttg	ttctgcacat	11040
gtgtatgttc	tgccatttcc	aggacgaaaa	ggagggtgtg	ctaaagggaa	aggaggatcg	11100
atgcacatgt	atgccaagaa	cttctacggg	ggcaatggca	tcgtgggagc	gcaggtagtc	11160
aaggacgagg	attgtgtgct	gctttagatt	tggccctgga	ctttgtcttg	aaaaaccttt	11220
cacagcccca	gacaactttt	cctgaagcta	gtacagccat	gtgctgcaca	gtgacgcttt	11280
ggtcaatgtc	gcataatga	tgttgacc	ataagattat	aatggagctg	aaaaattcct	11340
gtgccttagt	gatgtttag	tggcacaaca	cattaccttt	tctacgttta	ggtacacaaa	11400
tattttgcct	acaggattca	gtagagtcac	atgctgtgca	gggttgtagc	ctaggagcag	11460
taggctctac	tatacagcct	aggtgtgcag	tgggctgtac	catctagggt	cgtgcattac	11520
agtatgggtg	tcacatgaca	aaatcgctta	gtgatgcaat	tctgagaata	tatccctgtt	11580
gttaagtga	gcgtgactat	tttgggggct	tggtttgctt	ttaaagacct	agtgcttcat	11640
atcctaccgt	ttgagagatg	agtagatttg	gatgggtgatt	tataatgttt	ccttttaggt	11700
gtctgctgtt	ttataagtaa	gcaggaacct	ctagcagtg	agccataacct	tccccttcc	11760
atttatatatt	cagtacatta	attgctttat	cttgtcaact	tcattttggg	gtccttggtt	11820
tcacagttta	gtgaatgatg	agaattaac	agcacaaaa	tatatccgga	ctgtttcttt	11880
tcctttctaa	tatattaaga	ttctattatg	tgttggtttt	ttttaaacct	aggttttatt	11940
tttccttttg	aaatggagtc	ttgtcagcc	gccagggctg	gagcagtggt	gtaatctcag	12000
ctcactgcaa	cctccacccc	cggtttcaag	caattctcct	gcctcagcct	cccagtaggc	12060
tgggaatata	gttacgtgcc	accatgcccc	accattcttt	gtatttttag	tagagacggg	12120
gtttcaccat	cttgtccagg	atggctctga	tctgtggacc	tcgtgatctg	cccaaagtc	12180
tgggattaca	ggcgtgagcc	accacgccc	gccaggtttt	attttttaac	tcttgaatgc	12240
agaaatgtta	gtgcttactg	gttaaaatag	aacatagtat	ttatatatta	ctttagtgt	12300
ttattgaaaa	tatcggaggt	gggataaaca	gagagatagg	gttggaagga	gagttttag	12360
cagcagtgt	atctctgtgt	cagattctgg	ccaggagtga	aaatgcaggg	cattaattag	12420
tatctccct	catggatttc	tgtggttcct	ttctcggttg	tccttaatgt	taggtgcccc	12480
tgggcgctgg	gattgctcta	gcctgtaagt	ataatggaaa	agatgaggtc	tgccctgactt	12540
tatatggcga	tgggtgctgt	aaccaggtaa	ttatgtctct	taacttcca	aaaacagtct	12600
tattttcaaa	gtctttaata	tttacagttg	aattttctaa	gaagtagcat	attgcttatt	12660
aggtgaaata	gcaagtccta	tggctagctg	aaatttgggt	gacttatggc	cagattagag	12720
attgacctct	tacgcttggt	tcacaagaga	cttacggggg	cacattcctg	tgaaggagct	12780
cacctttgct	ctacatcagt	gcttggcaaa	ggccctgtgg	taaaggacct	ccccacaa	12840
tattgcaaaa	caatacagac	ccattctctt	ggatgtccgg	gctggcagtg	tcaaattcgg	12900
ataatagcgt	ctgagtccta	actcagtttc	tatgcttctc	ttgttaccga	gtaatcccca	12960
gtctgtggcc	agcactctgt	gaagccctgt	tctagaggct	gattcttagg	tgctggttca	13020
ctctggctat	ccagtgggccc	tgatagattt	catattgatc	ttttttccag	tgtgttcctt	13080
actgctagca	tggcccaaaa	gaaacaagta	gtagttgggt	tgccaccttc	cttagttgca	13140
agagtatgat	gcctgtcact	tctcctccac	cacccacccc	gctttccctc	accacccaaa	13200

gctcggtttt	agaagaggag	gctttctgtg	ctttatgaaa	gctttctgtg	ccaggcagag	13260
cagcagctgt	tagagatgat	gaagcctgga	gaaagaagcc	aaatgaaacc	ccttttcgta	13320
actacttcca	gggccagata	ttcgaagcct	acaacatggc	agctttgtgg	aaattacctt	13380
gtattttcat	ctgtgagaat	aatcgctatg	gaatgggaac	gtctgttgag	agagcggcag	13440
ccagcactga	ttactacaag	agaggcgatt	tcattcctgg	gctgagagta	aggacacctg	13500
tgggtggggcc	ggggccaagg	ccaaggccaa	gggtatgtac	cttgtgcaga	cccttgacga	13560
tcttagaaac	attgggagag	ttcattctca	tacaggagca	ggtcatgtga	aagtaaaatg	13620
gtttggggca	gttggtattca	tgcttcgccc	ctccccctgt	tattaccagg	tggatggaat	13680
ggatatcctg	tgcgtccgag	aggcaacaag	gtttgctgcc	gcctatngta	gatctgnnnn	13740
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13800
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13860
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13920
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	13980
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14040
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14100
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14160
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14220
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14280
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14340
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14400
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14460
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14520
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14580
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14640
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14700
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14760
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14820
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14880
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	14940
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15000
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15060
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15120
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15180
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15240
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15300
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15360
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15420
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15480
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15540
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15600
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15660
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	15720
nnnnnnnnnn	nnnnnnccct	ttagtgttac	ttcagatgat	ataggcataa	gatacattgg	15780
ttttgctggc	tgtgcttctt	tagggggact	taagggagaa	aggcaaggca	catggatttc	15840
ctgcttggcg	ctctgatgtc	tcaaagtcta	attatcacca	cacacaccat	ctctgctgtc	15900
cccacccatg	tagtatacag	gagcccaa	gggtgggaca	agtgacactt	ctttagaacc	15960
ttacatctaa	atcaaagcag	caagcaaaaa	cttggccctt	gttgtcggta	atgccaggga	16020
agccatgtga	ctcaccagtg	tacggttttc	tagaaaagac	agaagcagtt	attacagaat	16080
gttaggctgc	gttctggtat	tttgaagta	taacaacaac	tctgccacgc	ctatagtgc	16140
ataagcatgt	gtatgccctt	ttgtttcaga	aacacacttc	tgtatttcac	ctcattggga	16200
caatccaacc	ccatatcatg	tttcatcacg	ccgtccttgc	tctactggaa	ctgctcttac	16260
tgatcgatta	ctacttttcc	ctccccatag	ttaccgtaca	cgagaagaaa	ttcaggaagt	16320
agaagtaag	agtgacccta	ttatgcttct	caaggacagg	atggtgaaca	gcaatcttgc	16380
cagtgtggaa	gaactaaagg	tacagtcact	tgttcatggg	ggtttgaagg	ttggctttaa	16440
aagttgccac	ccctgggtgg	ccacagagtt	tgtgtgggtt	cctccaagcc	cagaaagtga	16500
tgtcctggga	cataaatagt	tccatagttc	caaagtccct	tgggggtggg	gcttttcctt	16560
tagtttcctc	tattcaaaat	tgtattactc	ttcagatttc	agattttggt	ggactgtgaa	16620

```

ccaccatcac agtggcaaaag ccccccacagt agtatgggttc ttttttccta aaagtatact 16680
gtggattttt aattcataaa atagatacac cctagaaatc tgtnnnnnnn nnnnnnnnnn 16740
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 16800
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 16860
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 16920
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 16980
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17040
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17100
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17160
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17220
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17280
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17340
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17400
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17460
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17520
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17580
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17640
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17700
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17760
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17820
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17880
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 17940
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18000
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18060
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18360
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 18400

```

```

<210> 4
<211> 414
<212> PRT
<213> Homo sapiens

```

```

<400> 4
Glu Thr Trp Gly His Pro Arg Arg Ala Ser Trp Val Val Arg Ser Arg
 1             5             10             15
Arg Cys Arg His Cys Leu Cys Phe Met Arg Lys Met Leu Ala Ala Val
      20             25             30
Ser Arg Val Leu Ser Gly Ala Ser Gln Lys Pro Ala Ser Arg Val Leu
      35             40             45
Val Ala Ser Arg Asn Phe Ala Asn Asp Ala Thr Phe Glu Ile Lys Lys
      50             55             60
Cys Asp Leu His Arg Leu Glu Glu Gly Pro Pro Val Thr Thr Val Leu
      65             70             75             80
Thr Arg Glu Asp Gly Leu Lys Tyr Tyr Arg Met Met Gln Thr Val Arg
      85             90             95
Arg Met Glu Leu Lys Ala Asp Gln Leu Tyr Lys Gln Lys Ile Ile Arg
      100            105            110
Gly Phe Cys His Leu Cys Asp Gly Gln Glu Ala Cys Cys Val Gly Leu
      115            120            125
Glu Ala Gly Ile Asn Pro Thr Asp His Leu Ile Thr Ala Tyr Arg Ala
      130            135            140

```


His Gly Phe Thr Phe Thr Arg Gly Leu Ser Val Arg Glu Ile Leu Ala
 145 150 155 160
 Glu Leu Thr Gly Arg Lys Gly Gly Cys Ala Lys Gly Lys Gly Gly Ser
 165 170 175
 Met His Met Tyr Ala Lys Asn Phe Tyr Gly Gly Asn Gly Ile Val Gly
 180 185 190
 Ala Gln Val Pro Leu Gly Ala Gly Ile Ala Leu Ala Cys Lys Tyr Asn
 195 200 205
 Gly Lys Asp Glu Val Cys Leu Thr Leu Tyr Gly Asp Gly Ala Ala Asn
 210 215 220
 Gln Gly Gln Ile Phe Glu Ala Tyr Asn Met Ala Ala Leu Trp Lys Leu
 225 230 235 240
 Pro Cys Ile Phe Ile Cys Glu Asn Asn Arg Tyr Gly Met Gly Thr Ser
 245 250 255
 Val Glu Arg Ala Ala Ala Ser Thr Asp Tyr Tyr Lys Arg Gly Asp Phe
 260 265 270
 Ile Pro Gly Leu Arg Val Asp Gly Met Asp Ile Leu Cys Val Arg Glu
 275 280 285
 Ala Thr Arg Phe Ala Ala Ala Tyr Cys Arg Ser Gly Lys Gly Pro Ile
 290 295 300
 Leu Met Glu Leu Gln Thr Tyr Arg Tyr His Gly His Ser Met Ser Asp
 305 310 315 320
 Pro Gly Val Ser Tyr Arg Thr Arg Glu Glu Ile Gln Glu Val Arg Ser
 325 330 335
 Lys Ser Asp Pro Ile Met Leu Leu Lys Asp Arg Met Val Asn Ser Asn
 340 345 350
 Leu Ala Ser Val Glu Glu Leu Lys Glu Ile Asp Val Glu Val Arg Lys
 355 360 365
 Glu Ile Glu Asp Pro Ala Gln Phe Ala Ala Ala Asp Pro Glu Pro Pro
 370 375 380
 Leu Glu Glu Leu Gly Tyr His Ile Tyr Ser Ser Asp Pro Pro Phe Glu
 385 390 395 400
 Val Arg Gly Ala Asn Gln Trp Ile Lys Phe Lys Ser Val Ser
 405 410

<210> 5
 <211> 390
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Arg Lys Met Leu Ala Ala Val Ser Arg Val Leu Ser Gly Ala Ser
 1 5 10 15
 Gln Lys Pro Ala Ser Arg Val Leu Val Ala Ser Arg Asn Phe Ala Asn
 20 25 30
 Asp Ala Thr Phe Glu Ile Lys Lys Cys Asp Leu His Arg Leu Glu Glu
 35 40 45
 Gly Pro Pro Val Thr Thr Val Leu Thr Arg Glu Asp Gly Leu Lys Tyr
 50 55 60
 Tyr Arg Met Met Gln Thr Val Arg Arg Met Glu Leu Lys Ala Asp Gln
 65 70 75 80
 Leu Tyr Lys Gln Lys Ile Ile Arg Gly Phe Cys His Leu Cys Asp Gly
 85 90 95
 Gln Glu Ala Cys Cys Val Gly Leu Glu Ala Gly Ile Asn Pro Thr Asp
 100 105 110
 His Leu Ile Thr Ala Tyr Arg Ala His Gly Phe Thr Phe Thr Arg Gly

His	Leu	Ile	Thr	Ala	Tyr	Arg	Ala	His	Gly	Phe	Thr	Phe	Thr	Arg	Gly	115	120	125
Leu	Pro	Val	Arg	Ala	Ile	Leu	Ala	Glu	Leu	Thr	Gly	Arg	Arg	Gly	Gly	130	135	140
Cys	Ala	Lys	Gly	Lys	Gly	Gly	Ser	Met	His	Met	Tyr	Ala	Lys	Asn	Phe	145	150	155
Tyr	Gly	Gly	Asn	Gly	Ile	Val	Gly	Ala	Gln	Val	Pro	Leu	Gly	Ala	Gly	165	170	175
Ile	Ala	Leu	Ala	Cys	Lys	Tyr	Asn	Gly	Lys	Asp	Glu	Val	Cys	Leu	Thr	180	185	190
Leu	Tyr	Gly	Asp	Gly	Ala	Ala	Asn	Gln	Gly	Gln	Ile	Phe	Glu	Ala	Tyr	195	200	205
Asn	Met	Ala	Ala	Leu	Trp	Lys	Leu	Pro	Cys	Ile	Phe	Ile	Cys	Glu	Asn	210	215	220
Asn	Arg	Tyr	Gly	Met	Gly	Thr	Ser	Val	Glu	Arg	Ala	Ala	Ala	Ser	Thr	225	230	235
Asp	Tyr	Tyr	Lys	Arg	Gly	Asp	Phe	Ile	Pro	Gly	Leu	Arg	Val	Asp	Gly	245	250	255
Met	Asp	Ile	Leu	Cys	Val	Arg	Glu	Ala	Thr	Lys	Phe	Ala	Ala	Ala	Tyr	260	265	270
Cys	Arg	Ser	Gly	Lys	Gly	Pro	Ile	Leu	Met	Glu	Leu	Gln	Thr	Tyr	Arg	275	280	285
Tyr	His	Gly	His	Ser	Met	Ser	Asp	Pro	Gly	Val	Ser	Tyr	Arg	Thr	Arg	290	295	300
Glu	Glu	Ile	Gln	Glu	Val	Arg	Ser	Lys	Ser	Asp	Pro	Ile	Met	Leu	Leu	305	310	315
Lys	Asp	Arg	Met	Val	Asn	Ser	Asn	Leu	Ala	Ser	Val	Glu	Glu	Leu	Lys	325	330	335
Glu	Ile	Asp	Val	Glu	Val	Arg	Lys	Glu	Ile	Glu	Asp	Ala	Ala	Gln	Phe	340	345	350
Ala	Thr	Ala	Asp	Pro	Glu	Pro	Pro	Leu	Glu	Glu	Leu	Gly	Tyr	His	Ile	355	360	365
Tyr	Ser	Ser	Asp	Pro	Pro	Phe	Glu	Val	Arg	Gly	Ala	Asn	Gln	Trp	Ile	370	375	380
Lys	Phe	Lys	Ser	Val	Ser											385		390